

ACCELERATOR OPERATIONS AND TECHNOLOGY DIVISION

AOT-ABS Accelerator and Beam Science

Name: Jeff Kolski, Postdoctoral Research Associate
Mentors: Ken Johnson, Thomas Spickermann, and Rodney McCrady
Poster Title: Application of Independent Component Analysis (ICA) to Long Bunch Beams in the Los Alamos Proton Storage Ring

BIOSCIENCE DIVISION

B-6 Genome Science

Name: Nicholas Beckloff, Postdoctoral Research Associate
Mentor: Patrick Chain
Poster Title: Discovery of Novel sRNAs from Yersinia Pestis

Name: Armand Dichosa, Postdoctoral Research Associate
Mentor: Cliff Han and Chris Detter
Poster Title: Inducing Artificial Polyploidy in Bacillus Subtilis: Implications to Advance Single Cell Genomics

B-7 Biosecurity and Public Health

Name: Nan Li, Postdoctoral Research Associate
Mentors: Elizabeth Hong-Geller and Anu Chaudhary
Poster Title: Functional Discovery of Host Small RNAs in Infectious Disease

Name: Sofiya Micheva-Viteva, Postdoctoral Research Associate
Mentor: Elizabeth Hong-Geller
Poster Title: RNAi-Based HTS to Identify Human Host Factors Involved in Yersinia Virulence

Name: Amber Nagy, Postdoctoral Research Associate
Mentor(s): Rashi Iyer and Bob Williams
Poster Title: Cytotoxicity of Quantum Dots in Normal Human Bronchial Epithelial Cells: Comparisons of Core Type and Functionalization

Name: Mark Wolfenden, Postdoctoral Research Associate
Mentor(s): Jurgen Schmidt and David Kimball
Poster Title: Siderophores for Pathogen Capture and Radioisotope Assisted Diagnostics

BIOSCIENCE DIVISION (CONTINUED)

B-8 Bioenergy and Environmental Science

Name: Marc-Michael Blum, Director's Postdoctoral Fellow - B-7/B-8
Mentor: Bob F. Williams and Cliff Unkefer
Poster Title: Engineering of Diisopropyl Fluorophosphatase for Enhanced Activity Against V-type Nerve Agents

Name: Jin Kyung Kim, Postdoctoral Research Associate
Mentor: Pete Silks
Poster Title: Model System Studies of Cellulose Conversion to Biofuel via Garcia-Gonzalez Reaction

Name: Alex Koglin, Oppenheimer Distinguished Postdoc Fellow - B-8/B-7
Mentor(s): Cliff Unkefer and Bob Williams
Poster Title: Novel Methods to Investigate Structures and Structural Dynamics of Very Large Proteins by NMR Spectroscopy: Assembly and Alteration of Antibiotic Biosynthesis

Name: Ricardo Marti-Arbona, Postdoctoral Research Associate
Mentor: Pat Unkefer
Poster Title: A Systematic Approach to Transcriptional Regulator Function Discovery: Novel Effectors for an Old Regulator (MetJ) and Function Discovery for Bxe_B3018 and Bxe_A0425

B-9 Advanced Measurement Science

Name: Hau Nguyen, Postdoctoral Research Associate - B-9/INST-OFF
Mentor(s): Geoff Waldo and Tom Terwilliger
Poster Title: Protein Domain Trapping Method: In Search of Compact, Soluble Protein Fragments for Structural Biology

CHEMISTRY DIVISION

C-IIAC Inorganic, Isotope, and Actinide Chemistry

Name: Beau Ballard, - Postdoctoral Research Associate - C-IIAC/SPO-SC
Mentors: Eva Birnbaum, Michael Fassbender, and Kevin John
Poster Title: Bulk Production of Generator Parent ^{72}Se at the Los Alamos IPF using a NaBr Target

CHEMISTRY DIVISION (CONTINUED)

C-IIAC Inorganic, Isotope, and Actinide Chemistry

Name: Scott R. Daly, Postdoctoral Research Associate - C-IIAC/INST-OFF

Mentors: Stosh Kozimor and Dave Clark

Poster Title: Insights into the Selectivity of Minor Actinide Extractants: Sulfur K-edge X-ray Absorption Spectroscopy and Time Dependent-Density Functional Theory of Dithiophosphinates

C-PCS Physical Chemistry and Applied Spectroscopy

Name: Christophe Galland, Postdoctoral Research Associate

Mentors: Victor Klimov and Han Htoon

Poster Title: Single Quantum Dot Spectroelectrochemistry Reveals the Role of Charging in Photoluminescence Blinking

Name: Sandeep Kumar, Postdoctoral Research Associate – C-PCS/C-DO

Mentors: Harshini Mukundan and Basil Swanson

Poster Title: High-Throughput Screening of Antibodies against Mycobacterium Tuberculosis Biomarkers

Name: Aditya Mohite, Postdoctoral Research Associate – C/PCS/MPA-CINT

Mentors: Han Htoon and Tom Picraux

Poster Title: Observation of Exceptionally Long Minority Carrier Diffusion Lengths in VLS-grown In-Situ Doped Axial Si Nanowire p-n Junctions

Name: Young-Shin Park, Postdoctoral Research Associate

Mentor: Han Htoon

Poster Title: Controlling Radiative and Nonradiative Recombination Pathways of Multi-Excitonic States in Colloidal Nanocrystal Quantum Dots

Name: Rama Murthy Sakamuri, Postdoctoral Research Associate – C-PCS/C-DO

Mentors: Harshini Mukundan and Basil Swanson

Poster Title: Binding of Lipoarabinomannan to Serum High-Density Lipoproteins Decreases its Bioavailability in the Serum of Tuberculosis Patients

COMPUTER, COMPUTATIONAL, AND STATISTICAL SCIENCES DIVISION

CCS-2 Computational Physics and Methods

Name: Guillaume Simon, Postdoctoral Research Associate – CCS-2/T-3
Mentors: Balu Nadiga and Phil Jones
Poster Title: Interactions between Balanced and Unbalanced Turbulent Cascades; or How Ocean Circulation Equilibrates

Name: Tie Wei, Postdoctoral Research Associate
Mentor: Daniel Livescu and Malcolm Andrews
Poster Title: Effects of Initial Conditions on Single and Two-Mode Rayleigh-Taylor Instability

DECISION APPLICATIONS DIVISION

D-5 Nuclear Design and Risk Analysis

Name: Wenzhong Zhou - Postdoctoral Research Associate
Mentor(s): Jinsuo Zhang and Holly Trelue
Poster Title: Model and Simulation Code Development for Actinide-Containing Fuels

EARTH AND ENVIRONMENTAL SCIENCES DIVISION

EES-14 Earth Systems Observations

Name: Allison C. Aiken, Director's Postdoctoral Fellow – EES-14/ISR-2
Mentor: Manvendra Dubey and Petr Chylek
Poster Title: Laboratory Studies of the Optical Properties of Warming Aerosols with the SP2 and Photoacoustic Spectrometer: Soot and Hematite

Name: Rebeka Derseh - Postdoctoral Research Associate
Mentor: Thom Rahn
Poster Title: Isotopic Tracer for Climate Relevant Secondary Organic Aerosol

Name: Bradley Flowers, Postdoctoral Research Associate – EES-14/C-PCS
Mentor: Manvendra Dubey and Bryan Henson
Poster Title: Wavelength-Dependent Optical Properties, Mass Absorption Coefficients and Closure Studies for Carbonaceous Aerosols: Quantifying Absorption Enhancements of Absorptive and Non-Absorptive Coatings on Black Carbon Particles

EARTH AND ENVIRONMENTAL SCIENCES DIVISION (CONTINUED)

EES-14 Earth Systems Observations

Name: Chandana Gangodagamage, Postdoctoral Research Associate – EES-14/ISR-2
Mentor: Cathy Wilson and Steven Brumby
Poster Title: Scaling Laws in Arctic Permafrost River Basins: Statistical Signature in Transition

Name: Jiabin Han, Postdoctoral Research Associate
Mentor: Bill Carey
Poster Title: Effect of Carbonated or Leached Cement on Corrosion of Mild Steel in Simulated Wellbore Systems

Name: Chonggang Xu, Postdoctoral Research Associate
Mentor: Cathy Wilson and Nate McDowell
Poster Title: Simulating the Shrub Abundance Increase in the Arctic

EES-16 Computational Earth Sciences

Name: Min Chen- Postdoctoral Research Associate
Mentor: Richard Middleton and Cathy Wilson
Poster Title: Understanding Seasonal and Inter-Annual Lake Area Change Dynamics in Yukon Flats, Alaska

Name: Hailin Deng - Postdoctoral Research Associate
Mentor: Phil Stauffer and Zhenxue Dai
Poster Title: Assessment of Storage Capacity, Injectivity, and Leakage Using Multiscale Reservoir Simulation of CO₂ Sequestration at Rock Springs Uplift, Wyoming

Name: Dylan Harp - Postdoctoral Research Associate
Mentor: Velimir Vesselinov and Kay Birdsell
Poster Title: An Agent-Based Approach to Global Uncertainty and Sensitivity Analysis (ABAGUS)

Name: Kayla Lewis, Postdoctoral Research Associate, EES-16
Mentor: George Zyvoloski
Poster Title: Soil Subsidence Associated with Permafrost Degradation in the Arctic

EARTH AND ENVIRONMENTAL SCIENCES DIVISION (CONTINUED)

EES-17 Geophysics

Name: Youzuo Lin - Postdoctoral Research Associate
Mentor: Lianjie Huang
Poster Title: Double-Difference Waveform Inversion with Spatially-Variant Regularization for Quantitative Reservoir Monitoring

Name: Jonathan MacCarthy - Postdoctoral Research Associate
Mentor(s): Charlotte Rowe and Monica Maceira
Poster Title: Imaging Lithospheric Structure of Intercontinental Mountains through Simultaneous Inversion of Disparate Geophysical Data Types

HIGH PERFORMANCE COMPUTING DIVISION

HPC-5 High-Performance Systems Integration

Name: Adam Manzanares, Metropolis Postdoctoral Fellow
Mentor: John Bent and Meghan Wingate
Poster Title: Reducing Concurrency Bottlenecks in Parallel I/O Workloads

LANL INSTITUTES OFFICE

Name: David Mascarenas, Director's Postdoctoral Fellow
Mentor: Chuck Farrar
Poster Title: The Development of Active Self-Preservation Policies for Ensuring the Cyber-Physical Security of Unattended, Car-Like, Mobile Sensor Nodes

Name: Christopher Stull, Postdoctoral Research Associate
Mentor: Chuck Farrar
Poster Title: Toward Quantifying the Predictive Maturity of Computer Codes

INTERNATIONAL, SPACE, AND RESPONSE DIVISION

ISR-1 Space Science and Applications

Name: Jeremie Lasue, Postdoctoral Research Associate – ISR-1/EES-14/C-PCS
Mentor: Roger Wiens, Dave Vaniman, and Sam Clegg
Poster Title: Mars Science Laboratory ChemCam Fast Motion Field Test Results

INTERNATIONAL, SPACE, AND RESPONSE DIVISION (CONTINUED)

ISR-6 High Power Electrodynamics

Name: Vitaly Pavlenko, Postdoctoral Research Associate – ISR-6/T-4
Mentor: Nathan Moody and Lev Boulaevskii
Poster Title: Superconducting Tunable THz Sources

LOS ALAMOS NEUTRON SCIENCE CENTER

LANSCE-LC Lujan Center

Name: Peng Wan, Postdoctoral Research Associate – LANSCE-LC/EES-DO
Mentor: Jaroslaw Majewski and Don Hickmott
Poster Title: High Pressure and High Temperature Neutron Reflectometer Cell for Solid-Fluid Interface Research

MATERIALS PHYSICS AND APPLICATIONS DIVISION

MPA-11 Sensors and Electrochemical Devices

Name: John Brady, Postdoctoral Research Associate
Mentor: Dipen Sinha and Cristian Pantea
Poster Title: Acoustic Imaging System for Oil Well Downhole Applications

Name: Blake Sturtevant, Postdoctoral Research Associate
Mentor: Cristian Pantea and Dipen Sinha
Poster Title: Coupling Layer Corrections in Pulse-Echo Time-of-Flight Measurements in Solids Revisited

MPA-CINT Center for Integrated Nanotechnologies

Name: Jeong-Hyun Cho, Director's Postdoctoral Fellow
Mentor: Tom Picraux
Poster Title: Silicon NW Growth on Metal Substrates for a High Performance Lithium-Ion Battery Anode

Name: Jared Crochet, Postdoctoral Research Associate – MPA-CINT/C-PCS
Mentor: Steve Doorn and Han Htoon
Poster Title: Advanced Microscopic Imaging of Single-Wall Carbon Nanotubes: From One-Dimensional Surface Science to Nano-Scale Rheology

MATERIALS PHYSICS AND APPLICATIONS DIVISION (CONTINUED)

MPA-CINT Center for Integrated Nanotechnologies

- Name: Shadi Dayeh
Mentor: Tom Picraux
Poster Title: An Atomic Scale Understanding of Defect Nucleation and Propagation in Heterostructure Nanowires
- Name: Yagnaseni Ghosh, Postdoctoral Research Associate
Mentor: Jenn Hollingsworth
Poster Title: Understanding “Giant” Nanocrystal Quantum Dots by Synthetic Manipulations and Spectroscopic Methods
- Name: Steve Gilbertson, Director's Postdoctoral Fellow
Mentor: George Rodriguez
Poster Title: Quasiparticle Lifetime Near the Dirac Point in Graphene
- Name: Jaemyeong Jung, Postdoctoral Research Associate - MPA-CINT/B-9
Mentor: Peter Goodwin, Jim Werner, and Andrew Bradbury
Poster Title: Molecular Level Understanding of Cellulase-Catalyzed Hydrolysis of Cellulose: A Single-Molecule Approach
- Name: Rawiwan Laocharoensuk, Director's Postdoctoral Fellow
Mentor: Jenn Hollingsworth
Poster Title: Flow Solution-Liquid-Solid Growth: Novel Solution-Phase Technique for Fabrication of Axially Heterostructured Semiconductor Nanowires
- Name: Daniel Perea, Director's Postdoctoral Fellow
Mentor: Tom Picraux
Poster Title: Synthesis of Abrupt Interfaces without Kinking in VLS-Grown Si-Ge Axial Nanowire Heterostructures by Novel In Situ Catalyst Alloying
- Name: Minah Seo, Postdoctoral Research Associate – MPA-CINT/EES-16
Mentor: Rohit Prasankumar and Houtong Chen
Poster Title: Polarization Anisotropy of Transient Carrier Dynamics in Single Silicon Nanowire
- Name: Jinkyoun Yoo, Postdoctoral Research Associate
Mentor: Rohit Prasankumar and Houtong Chen
Poster Title: Polarization Anisotropy of Transient Carrier Dynamics in Single Silicon Nanowire
-

MATERIALS PHYSICS AND APPLICATIONS DIVISION (CONTINUED)

MPA-CMMS Condensed Matter and Magnet Science

Name: Miles Beau, Postdoctoral Research Associate
Mentor: John Joyce
Poster Title: Hard X-Ray Photoelectron Spectroscopy and Electronic Structure of Single Crystal UPd₃, UGe₂, and USb₂

MPA-MC Materials Chemistry

Name: Jonathan Cape, Director's Postdoctoral Fellow
Mentor: Jim Boncella
Poster Title: DNA Aptamer Based Detection of O,O-Dialkyl Halophosphates

Name: Robert Jilek, Postdoctoral Research Associate
Mentor: Jim Boncella
Poster Title: New Frontiers in Actinide Imido Chemistry: Preparation and Reactivity of Uranium (IV) Imido Dihalides

Name: Katherine Lovejoy, Reines Distinguished Postdoctoral Fellow – MPA-MC/B-8
Mentor: Rico Del Sesto and Andy Koppisch
Poster Title: Materials Designed for Identification of Forensic Analytes

Name: Nicholas Travia, Postdoctoral Research Associate
Mentor: Jackie Kiplinger
Poster Title: Snapshots of Thorium-Mediated THF Ring-Opening Reactions Using bis(pentamethylcyclopentadienyj)

MATERIALS SCIENCE AND TECHNOLOGY DIVISION

MST-7 Polymers and Coatings

Name: Lakshminarayana Gandham, Postdoctoral Research Associate
Mentor: Markus Hehlen
Poster Title: Structural, Thermal, and Optical Characterization of Transparent Glass Ceramics Containing LaF₃: Ce³⁺ Nanocrystals for Scintillation Applications

MST-8 Structure/Property Relations

Name: Levente Balogh, Postdoctoral Research Associate
Mentor: Donald Brown and Carlos Tome
Poster Title: The Nature of Dislocations in Irradiated Zirconium Determined by Diffraction Line Profile Analysis

MATERIALS SCIENCE AND TECHNOLOGY DIVISION (CONTINUED)

MST-8 Structure/Property Relations

- Name: Juan Escobedo, Postdoctoral Research Associate – MST-9/WX-9
Mentor: Ellen Cerreta and Darcie Dennis-Koller
Poster Title: Effects of Grain Size and Boundary Structure on the Dynamic Tensile Response of Copper
- Name: Saryu Fensin, Postdoctoral Research Associate
Mentor: Rusty Gray, Ellen Cerreta, and Steve Valone
Poster Title: Structure and Shock Response of a Sigma 11 Asymmetric Tilt Grain Boundary in Copper at Finite Temperature
- Name: Tongsik Lee Postdoctoral Research Associate - MST-8/MST-6
Mentor: Steve Valone and Chris Taylor
Poster Title: Atomistic Modeling of the Thermodynamic Equilibrium and Phase Transitions in Solids
- Name: Enrique Martinez Saez, Postdoctoral Research Associate
MST-8/MPA-CINT
Mentor: Jose Caro and Mike Nastasi
Poster Title: Synchronous Parallel Kinetic Monte Carlo: Diffusion in Heterogeneous Systems
- Name: Alejandro Perez-Bergquist, Postdoctoral Research Associate
Mentor: Ellen Cerreta and Rusty Gray
Poster Title: Grain Boundary Response in Shocked Copper Multicrystals: TEM Characterization and Atomistic Modeling

NUCLEAR NONPROLIFERATION DIVISION

N-4 Safeguards and Security Systems

- Name: Sara Kutchesfahani, Postdoctoral Research Associate
Mentor: Brian Boyer and Jim Doyle
Poster Title: How to Strengthen International Safeguards: Moving Forward with the Additional Protocol

PHYSICS DIVISION

P-21 Applied Modern Physics

- Name: Evgeny Burmistrov, Postdoctoral Research Associate
Mentor: Michelle Espy and Andrei Matlashov
Poster Title: Helmet Shaped SQUIDS Array for Ultra-Low Field MRI and MEG

PHYSICS DIVISION (CONTINUED)

P-21 Applied Modern Physics

Name: Chaitanya Chandrana, Postdoctoral Research Associate
Mentor: Pulak Nath and Michelle Espy
Poster Title: ‘Shim-a-Ring’ Magnets: Coaxial Shimming of Ring Magnets for Nuclear Magnetic Resonance (NMR) and Magnetic Separations

Name: Amy Guthormsen, Postdoctoral Research Associate
Mentor: John George
Poster Title: Using ERPs to Track the Timecourse of Visual Object Recognition

Name: Todor Karaulanov, Postdoctoral Research Associate
Mentor: Igor Savukov and Michelle Espy
Poster Title: Demonstration of Anatomical Imaging with a Portable Non-Cryogenic Ultra-Low Field MRI System

Name: Warren Lybarger, Postdoctoral Research Associate
Mentor: Malcolm Boshier
Poster Title: Single-Ion Heisenberg-Limited Quantum Phase Sensors

P-23 Neutron Science and Technology

Name: Sridhar Balasubramanian, Postdoctoral Research Associate
Mentor: Kathy Prestridge
Poster Title: Initial Condition Effects on Richtmyer-Meshkov Mixing and Turbulence

Name: Megan Leftwich, Agnew National Security Postdoctoral Fellow
Mentor: Kathy Prestridge
Poster Title: Motivation, Design, and Fabrication of the Vertical Shock Tube

Name: Suhas Pol, Postdoctoral Research Associate
Mentor: B. J. Balakumuar
Poster Title: Understanding Wind Turbine Fatigue Using advanced Fluid Diagnostics

THEORETICAL DIVISION

T-1 Physics and Chemistry of Materials

Name: Valery Borovikov, Postdoctoral Research Associate - T-1/T-5
Mentor: Art Voter and Xianzhu Tang
Poster Title: Influence Of Interstitials or Vacancies Introduced into Grain Boundary on Sliding Process in bcc Tungsten

THEORETICAL DIVISION (CONTINUED)

T-1 Physics and Chemistry of Materials

Name: Ivana Matanovic, Postdoctoral Research Associate - T-1/MPA-11
Mentor: Neil Henson and Fernando Garzon
Poster Title: Theoretical Study of Electrochemical Processes on Novel Platinum Group Metal Catalysts

Name: Aaron Pierpont, Postdoctoral Research Associate
Mentor: Enrique Batista and Richard Martin
Poster Title: DFT Study of Cp_2Th and Cp_2U Catalysts for Hydrodenitrogenation (HDN) and Hydrodesulfurization (HDS)

Name: Xiaodong Wen, Postdoctoral Research Associate
Mentor: Richard Martin and Sven Rudin
Poster Title: The High Temperature UC_2 Phase - A Rotational Solid

T-4 Physics of Condensed Matter and Complex Systems

Name: Jason Haraldsen, Postdoctoral Research Associate
Mentor: Alexander Balatsky
Poster Title: Emergent States in Paraelectric and Superconducting Interfaces

T-5 Applied Mathematics and Plasma Physics

Name: Tsvi Achler, Postdoctoral Research Associate – T-5/P-21
Mentor: Luis Bettencourt and Garrett Kenyon
Poster Title: Processing Mixtures of Patterns Using Generative Models

Name: Alexander Gutfraind, Postdoctoral Research Associate – T-5/T-CNLS/D-6
Mentor: Aric Hagberg and Feng Pan
Poster Title: The Sendai Network Problem: Optimizing Network Deployment and Recovery

Name: Zhengping Ji, T-5/ISR-2 - Postdoctoral Research Associate
Mentor: Luis Bettencourt and Steven Brumby
Poster Title: Deep Generative Networks as Systems Level Models of Primate Visual Cortex

T-6 Theoretical Biology and Biophysics

Name: Ghanim Ullah, Postdoctoral Research Associate – T-6/P-21
Mentor: John Pearson and Garrett Kenyon
Poster Title: A Data-Driven Model of a Modal Gated Ion Channel: The IP3 Receptor in Insect Sf9 Cells

THEORETICAL DIVISION (CONTINUED)

T-6 Theoretical Biology and Biophysics

Name: Jingshan Zhang, Director's Postdoctoral Fellow
Mentor: Alan Perelson and Ruy Ribeiro
Poster Title: Quantifying the Role of FDC as a Long Term Reservoir of HIV-1 Virus

WEAPONS EXPERIMENTS DIVISION

WX-7 High Explosives Science and Technology

Name: Amanda Duque, Director's Postdoctoral Fellow
Mentor: Lee Perry
Poster Title: Temperature Measurements of High Explosives Under Microwave Irradiation for Kinetic Analysis of Thermally Induced Transitions

WX-9 Shock and Detonation Physics

Name: Nhan Dang, Postdoctoral Research Associate
Mentor: Shawn McGrane and David Moore
Poster Title: Picosecond Temperature Measurement in Condensed Phases

Name: Carl Johnson, Postdoctoral Research Associate
Mentor: Von Whitley
Poster Title: Revisiting the Munroe Effect, New Experiments and Applications

X-COMPUTATIONAL PHYSICS

XCP-4 Methods and Algorithms

Name: Amy Lee, Postdoctoral Research Associate
Mentor: Randy Bos and Thomas Dey
Poster Title: Modeling the Response of Glazing to Blast Loading

XCP-5 Materials and Physical Data

Name: Charles Starrett, Postdoctoral Research Associate
Mentor: Didier Saumon and Jonathan Boettger
Poster Title: Many Body Correlations in a Variational Average Atom

XCP-6 Plasma Theory and Applications

Name: Chengkun Huang, Director's Postdoctoral Fellow
Mentor: Brian Albright and Tom Kwan
Poster Title: A Double-Foil Target for Improving Beam Quality In Laser Ion Acceleration with Thin Films